VISHNYAKOV, S.G.

Breccia-conglomerate turbid limestones; breccialike limestones.
Izv.vys.ucheb.zav.; geol.i razv 5 no.6:36-49 Je '62. (MIRA 15:7)

1. Voronezhskiy gosudarstvennyy universitet.
(Don Valley—Limestone)
(Kursk mangetic anomaly—Limestone)

VISHNYAKOV, S.G.

Lithology of the upper part of the variegated formation in the upper Devonian of the northwestern edge of the Moscow Basin. Trudy VGU 50:35-39 '59. (MIRA 13:12)

(Moscow Basin--Petrology)

VISHNYAKOV, S.I., dotsent; KHERUVIMOV, P.V.; SOROKINA, A.A., starshiy nauchnyy sotrudnik

Preventing toxic dyspepsia and treating calves affected with it. Veterinariia no.12:34-36 D '63. (MIRA 17:2)

1. Kurskaya oblastnaya nauchno-proizvodstvennaya veterinarnaya laboratoriya. 2. Kurskiy sel'skokhozyaystvennyy institut (for Vishnyakov).

VISHNYAKOV, S.I., kand. veterin. nauk; GROSHEVA, G.A., kand. veterin. nauk

Infectious gastroenteritis of swine. Veterinariia 38 no.3:
37-40 Mr '61 (MIRA 18:1)

1. Kurskaya oblastnaya nauchno-proizvodstvennaya veterinarnaya laboratoriya.

SHISHKOV, V.P., dotsent; BABAK, I.M., aspirant; SOLOV'YEV, F.A., dotsent; DANILEVSKIY, V.M., dotsent; VISHNYAKOV, S.I., dotsent; TITOV, G.I.; OKUNTSOV, L.P.; AFANAS'YEV, V.P.; ZHAROV, A.V., assistent; SLUGIN, V.S.; KRYLOV, O.N., aspirant

Noninfectious diseases. Veterinariia 41 no.4:64-80 Ap '64.
(MIRA 17:8)

1. Moskovskaya veterinarnaya akademiya (for Shishkov, Zharov).
2. Belotserkovskiy sel'skokhozyaystvennyy institut (for Babak).
3. Velikolukskiy sel'skokhozyaystvennyy institut (for Solov'yev).
4. Kurskiy sel'skokhozyaystvennyy institut (for Vishnyakov).
5. Zaveduyushchiy otdelom nezaraznykh zabolevaniy Buryatskoy nauchno-proizvodstvennoy veterinarnoy laboratorii (for Titov).
6. Zaveduyushchiy Berezovskoy veterinarnoy laboratoriyey, Volgogradskaya obl. (for Okuntsov). 7. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva Kraynego Severa (for Afanas'yev).
8. Pushkinskiy zverosovkhoz Moskovskoy oblasti (for Slugin).
9 Leningradskiy veterinarnyy institut (for Krylov).

VISHNYAKOV, S.I., kand.veter. nauk

Pathogenesis and therapy of rickets in swine. Veterinariia 40 no.2: 51-53 F '63. (MIRA 17:2)

1. Kurskiy sel'skokhozyaystvennyy institut.

VISHNYAKOV, S.I.

Modified method for the colorimetric determination of potassium in blood serum, other tissues, and organic substances. Lab.delo 6 no.2:17-20 Mr-Ap '60. (MIRA 13:6)

1. Kurskaya nauchno-issledovatel'skaya veterinarnaya stantsiya.
(COLORIMETRY) (POTASSIUM)

VISHNYAKOV, S.I.

Antihemolytic effect of zinc salts. Biokhimiia 24 no.2:307-310 Mr-Ap '59. (MIRA 12:7)

1. The Research Veterinary Station, Kursk.
(HEMOLYSIS, eff. of drugs on,
zinc salts (Rus))
(ZINC,
salts, antihemolytic eff. (Rus))

VISHNYAKOV, S. I. and GROSHEVA, G. A. (Candidates of Veterinary Sciences, Kursk Oblast' Scientific-Industrial Veterinary Laboratory).

"Infectious gastroenterocolitis of swine."

Veterinariya, Vol. 38, No. 3, 1961, p. 37.

VISHNYAKOV, S.M.

LAZAREV, N.V., zasluzhennyy deyatel' nauki, prof.; VISHNYAKOV, S.M., kand.med. nauk

Increasing body resistance to operative trauma by means of drugs [with summary in English]. Vest.khir. 79 no.11:19-23 N '57. (MIRA 11:3)

1. Iz kafedry farmakologii, farmatsii i farmakognozii (nach.-prof. N.V.Lazarev) Voyenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova. Adres N.V.Lazareva: Leningrad, D-14, ul. Saltykova-Shchedrina, d. 17, kv.8.

(VITAMIN B 12, eff.
on resist. to operative trauma in cats)
(MUSCLE RELAXANTS, eff.
dibazol, on resist. to operative trauma in cats)
(IMIDAZOLES, eff.
5,6-dimethylbenzimidazole, on resist. to operative trauma in cats)
(SURGERY, OPERATIVE,
eff. of vitamin B_{12}, dibazol, 5,6-dimethylbenzimidazole on resist. to surg. trauma in animals (Rus)

1. S. T. VISHNYAKOV

2. USSR (600)

4. Bauxite

7. Origin of aluminous minerals in bauxitic rocks. Dokl. AN SSSR 88 no. 3. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. S. T. VISHNYAKOV

2. USSR (600)

4. Bauxite

7. Origin of aluminous minerals in bauxitic rocks. Dokl. AN SSSR 88 no. 3. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. S. T. VISHNYAKOV

2. USSR (600)

4. Aluminum

7. Origin of aluminous minerals in bauxite rocks. Dokl. AN SSSR 88 no. 3. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

VISHNYAKOV, D. V.

"Water Rats of the Central Oblasts of the RSFSR." Sub 17 May 51, Acad Med Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Card 1/1

VISHNYAKOV, S.V. Jan/Feb 53

USSR/Biology-Rodents

"Mechanical Means of Catching Water Rats"

Zool Zhur, Vol 32, No 1, pp 150-153

Describes in details the seasonal, industrial, and Public Health aspects of organized trapping of water rats. An illustration shows a new type of trap, made of sheet iron, and proposed by the author of this article.

26712

VISHNYAKOV, S. V.

VISHNYAKOV, S. V.
USSR/Biology - Rodents May/Jun 53

"The Distribution and Extermination of Common Field Mice (Microtus arvalis Pall.) in Cities," N. M. Dukelskaya, S. V. Vishnyakov, Central Sci-Res Inst of Disinfection, Min of Health USSR, Moscow Observation Station

Zool Zhur, Vol 32, No 3, pp 506-512

Describes extermination methods used against common field mice found in large numbers in storage houses containing food products, i.e., vegetables, eggs, fresh and preserved fish, etc. Largest number of rodents are found in places storing carrots. Rodents brought in with food products from other

264T13

areas do not mix with local rodent population. Laboratory expts showed good results in extermination of rats with automobile-engine exhaust gas.

VISHNYAKOV,S.V.; DUKEL'SKAYA,N.M.; IVANOVA,V.V.

Relative calculation of the rodent population in urban habitats. Zool.zhur.34 no.4:902-914 Jl-Ag '55. (MLRA 8:9)

1. Moskovskaya nablyudatel'naya stantsiya, TSentral'nyy nauchno-issledovatel'skiy dezinfektsionnyy institut Ministerstva zdravo-okhraneniya SSSR i Opytno-prakticheskaya laboratoriya Glavkholoda
(Rodent control)

ACC NR: AP7004698 (A,N) SOURCE CODE: UR/0016/66/000/008/0012/0017

AUTHOR: Vishnyakov, S. V.; Myasnikov, Yu. A.; Panina, T. V.; Zhukova, L.D.

ORG: Central Disinfection Institute (Tsentral'nyy dezinfektsionnyy institut); Tula Oblast Sanitary-Epidemiological Station (Tul'skaya oblastnaya sanitarno-epidemiologicheskaya stantsiya)

TITLE: Devising a rodent control system for forest foci of renal hemorrhagic fever

SOURCE: Zh mikrobiol, epidemiol i immunobiol, no. 8, 1966, 12-17

TOPIC TAGS: ~~human ailment, renal hemorrhagic fever,~~ poison effect, pest control, ~~disease vector,~~ rodent, HEMORRHAGE, DIGESTIVE SYSTEM, DISEASE, DISEASE CONTROL

ABSTRACT: Renal hemorrhagic fever in a forest focus was successfully controlled by poisoning the rats which are vectors of the disease. Two kg/ha of grain poisoned with zinc phosphide were applied by plane along poisoned zone 30 m wide separated by nonpoisoned zones 50—100 m wide. Near settled areas, bait containers with an open end were buried in the soil and placed 10—20 m apart. Poisoned bait and traps were used within buildings, usually during the winter. The poisoned zones around villages were especially effective in preventing the

Card 1/2 UDC: 616.61-002.151-022.6-084.449.932.34

ACC NR: AP7004698

penetration of new rat populations when the animals migrated. Orig. art. has: 5 tables.

[LP]
[WA-50]

SUB CODE: 06/ SUBM DATE: 7Jun65/ ORIG REF: 004

Card 2/2

VISHNYAKOV, S.V.

Comparative characteristics of the abundance of fleas and ticks in the nests of gray marmots as related to their distribution in various habitats and burrows. Zool. zhur. 42 no.1:135-138 '63. (MIRA 16:5)

1. Central Research Desinfection Institute, Moscow.
(Kirghizistan—Parasites—Marmots)
(Kirghizistan—Fleas as carriers of disease)
(Kirghizistan—Ticks as carriers of disease)

VISHNYAKOV, S.V.

Materials on the ecology of the water rat in central provinces of the R.S.F.S.R. Mat. k pozn. fauny i flory SSSR. Otd. zool. no.37: 77-108 '57. (MIRA 11:1)

(Field mice)

VISHNYAKOV, V.

Guidance of the workers' conscience. NTO 5 no.4:53-54 Ap '63.
(MIRA 16:3)

1. Spetsial'nyy korrespondent zhurnala "Nauchno-tekhnicheskiye obshchestva SSSR.
(Uzlovaya—Coal mines and mining)

VISHNYAKOV, V.

Brotherhood of industrial collectives. MTO 5 no.1:52-54 Ja '63. (MIRA 16:5)

1. Spetsial'nyy korrespondent zhurnala "Nauchno-tekhnicheskiye obshchestva SSSR".
(Chemical industries—Technological innovations)

VISHNYAKOV, V. (Cheboksary)

Secret of achievements. NTO 5 no.8:45-47 Ag '63. (MIRA 16:10)

1. Spetsial'nyy korrespondent zhurnala "Nauchno-tekhnicheskiye obshchestva SSSR."

VISHNYAKOV, V., inzh.-podpolkovnik

Compatriot of heroes. Starsh.-serzh. no.6:12-13 Je '64.
(MIRA 17:7)

VISHNYAKOV, V. (Kanash Chuvashskoy ...)

Research is their motto. NTO ... no.9:48-50 S '63. (MIRA 17:6)

1. Spetsial'nyy korrespondent zhurnala "Nauchno-tekhnicheskiye obshchestva SSSR."

VISHNIAKOV, V.

V. Vishniakov, "Control of Sugar Beet Pests and Diseases," Kolkhoznoe Proizvodstvo, vol. 11, no. 5, 1951, pp. 38-39. 281.8 K83

SO: Sira Si 90-53, 15 Dec 1953.

L 38447-66 EWT(m)/T DJ
ACC NR: AP6018229 (A,N) SOURCE CODE: UR/0401/66/000/002/0034/0035

AUTHOR: Vishnyakov, V. (Engineer, Colonel; Candidate of technical sciences)

55
49
B

ORG: None

TITLE: New lubricants

SOURCE: Starshina-serzhant, no. 2, 1966, 34-35

TOPIC TAGS: low temperature lubricant, high temperature lubricant, lubricant viscosity, AKZp-10 lubricant, MT-16p lubricant, All lubricant, AKZp-6 lubricant

ABSTRACT: The author reviews a paper "Scientific research and development of new ways in production and application of high-grade low-congealed engine lubricants and in preparation and adoption of their assortment". The paper was prepared by E. G. Somenido, V. V. Nikitin, V. I. Sharapov, N. V. Shohegolev, M. A. Seniohkin, A. Kh. Mkhchiyan, R. B. Aliyev, A. M. Kuliyev, I. M. Orudzhev, N. M. Marketov, O. S. Obleukhova, S. S. Pernshteyn, and was recommended by the Ministry of Defense SSSR for a 1966 Lenin Prize award.

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L 38447-66

ACC NR: AP6018229

6

The paper deals with the so-called thickened lubricants having a low freezing temperature (-40 C) and the needed high viscosity at high operating temperatures (100 C). The relationship between viscosity and temperature is explained and illustrated in three graphs. The first graph shows the variation of viscosity with temperature for MT-16p" and AU lubricants." The second graph compares the viscosity at temperatures of 100 to 150 C for regular and thickened (with addition of polymers) lubricants. The third graph represents the comparative curves for the tank MT-16p" lubricant, the automobile AU" lubricant and thickened AKZp-10 and AKZp-6" lubricants. The work of Soviet scientists (especially of E. G. Semenido, Professor, Engineer, Colonel, Doctor of technical sciences) is praised.

SUB CODE: 11/ SUBM DATE: None

Card 2/2 pb

Vishnyakov, V.A.

65-58-4-5/12

AUTHOR: Vishnyakov, V. A., Vinogradov, G. V., Pavlov, I. P.

TITLE: The Influence of Lubricating Material on the Wear of Ball Bearings (O vliyanii smazochnykh materialov na iznos podshipnikov kacheniya)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 4, pp 26 - 32 (USSR)

ABSTRACT: The changes due to abrasion in the presence of lubricating oils were investigated to obtain information on the nature of the influence of lubricants on the abrasion wear in ball bearings. The investigations were carried out on a friction apparatus (Fig.1) with 3,600 revolutions/minute; 9.525 mm diameter balls were used. Ball No.1 was made from steel ШХ-3, and subjected to a thermal treatment ensuring a hardness of Rc_c = 62 - 64. Viscous lubricating oil УС-2 and $УС_c$-2 (according to ГОСТ 1033-51, and ГОСТ 4366-50), the oil МТ-16П (ГОСТ 6360-52) and spindle oil АУ (ГОСТ 1642-50) were tested, as well as a naphthenic - paraffin fraction separated from oil МЗ-14. A narrow fraction of quartz dust separated from Lyubertsy quartz sand (micro hardness = approximately 1,000 kg/cm^2) was used as abrasive. The size of the particles was as follows: not exceeding 5, not exceeding 10, from 10 - 20, from 20 - 30 and from 30 - 40 mk. The fractionated

Card 1/3

The Influence of Lubricating Material on the Wear of Ball Bearings

abrasives were dried in a Gonnel apparatus by air elutriation (Ref.4); 2 - 20% abrasives were added to the lubricant. Fig.2 shows the dependence of the magnitude of the wear on the rate of movement and duration of the wear. The dependence of the wear on the concentration & dispersion of the abrasive for particles of different size is given by Fig. 3. Curve No.4 (Fig.3) shows the relation between the wear and the dispersion of the abrasive. The physical condition of the lubricating medium influences the magnitude of wear considerably when using the viscous lubricant YC_c-2. A three to five times higher degree of wear was observed for a viscous lubricant YC_c-2 (the concentration of the abrasive between 2-20%) than in the case of oils (Fig.4). The degree of wear was lower than when spindle oil was used. This was due to viscosity, which according to Stoke's law governs the rate of sedimentation of particles of the abrasive. In the case of spindle oil, this rate is approximately ten times larger than for the oil MT-16П. The influence of the viscosity was also observed in investigations on the wear in relation to the temperature of the lubricant. During the latter experiments, viscous oils (YC_c-2), the oil MT-16П, and the naphthenic-paraffin fraction of the MS-14

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The Influence of Lubricating Material on the Wear of Ball Bearings

oil were tested at temperatures of 10- 60°C. 5% of quartz dust (size = 20 - 30 mk) was added to the lubricant (Fig.5). The experiments were carried out for 5 hours at 1400 revolutions/minute, and the temperature of the lubricant = 20°C. Fig. 7 shows the decrease of ash formation of the oil in relation to the rate and duration of the wear of the ball bearing. It was found that the wear, at a given concentration and dispersion of the abrasive, is considerably lower when non-viscous lubricants (oils) are used than for viscous lubricants. This is due to the sedimentation of the abrasive particles in non-viscous oils. When viscous oils are used at increased temperatures, the abrasive wear depends on the dispersion and concentration of the abrasive in the lubricant, and on the friction caused by the abrasive granules during the movement of the bearings. There are 5 Figures and 5 References:- 1 English, 4 Russian.

1. Ball bearings-Lubrication 2. Ball bearings-Performance
3. Lubricating oils-Test results 4. Lubricating oils-Test methods 5. Lubricating oils-Testing equipment

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PHASE I BOOK EXPLOITATION SOV/5055

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d. 1958.

Gidrodinamicheskaya teoriya smazki. Opory skol'zheniya. Sbornik statey (Hydrodynamic Theory of Lubrication. Bearings. Lubrication and Lubricant Materials) Moscow. Izd-vo AN SSSR. 422 p. Errata slip inserted. 3,800 copies printed. (Series: Its: Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.

Resp. Eds. for the Section "Hydrodynamic Theory of Lubrication and Slip Bearing": Ye. M. Gut'yar, Professor, Doctor of Technical Sciences, and I. K. D'yachkov, Professor, Doctor of Technical Sciences; Resp. Ed. for the Section, "Lubrication and Lubricant Materials": O. V. Vinogradov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: M. Ya. Klabanov; Tech. Ed.: O. M. Gus'kova.

PURPOSE: This collection of articles is intended for practicing engineers and research scientists.

COVERAGE: The collection, published by the Institut mashinovedeniya AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in [illegible]lubrication and Hydrodynamic Theory (cont.) SOV/5055

Kovalchinskiy, M. V. On Unsteady Motions of the Journal in a Bearing (Treniye i iznos v mashinakh" T. 14, Izd-vo AN SSSR, 1960) 164

II. LUBRICATION AND LUBRICANT MATERIALS

Lubricant Materials and Wear

Vinogradov, G. V., Some New Methods of Producing and Investigating Lubricant Materials 165

Al'shits, I. Ya., Ye. M. Oparina, L. M. Sentyurikhina, and V. M. Sushkina. Experiment Using Disulfide of Molybdenum as a Lubricant Material [illegible]

Bezborodko, M. D., M. T. Pavlovskaya, and V. V. Arkharova. Effect of the Composition and the Character of Gaseous Media on the Wear-Resistant Properties of Petroleum Lubricating Oils 177

Vinigel', S. V., Contact Effect in Wear as a Factor in the Oxidation of the Oil in Engines 187

Vinogradov, G. V., V. V. Arkharova, M. T. Pavlovskaya, and M. D. Bezborodko. Wear-Resistant and Antifriction Properties of Salt Fusions 191

Vishnevskiy, V. A., and V. G. Lebedev. Abrasive Wear of Roller Bearings in the Presence of a Lubricant Material 198

Klimov, K. I., and G. I. Kichkin. Critical Temperature of an Oil Film in Sliding Contact of Steel Surfaces, and the Dispersive Capacity of the Oil 201

Lazovskaya, O. V. Methods for Determining the Critical Temperature of an Oil Film in the Case of Friction of Steel Against Antifriction Alloys 212

Morozov, O. Ye. Wear-Resistant Reactions of Sulfur-organic Compounds as Additives to Lubricant Oils 218

VINOGRADOV, G.V. (Moskva); VISHNYAKOV, V.A. (Moskva)

Abrasive wear caused by rolling friction. Izv.AN SSSR.Otd. tekh.Mekh.i mashinostr. no.3:89-98 My-Je '60. (MIRA 13:6)

(Mechanical wear)

VISHNYAKOV, V.A.; ZYKOV, A.I.

Effect of displacement of the optimum frequency of an injector accelerator. Zhur.tekh. fiz. 34 no. 2:379-381 F '64. (MIRA 17:6)

1. Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov.

S/081/61/000/021/075/094
B138/B101

AUTHORS: Vishnyakov, V. A., Lebedev, V. G.

TITLE: Abrasive wear of rolling-contact bearings in the presence of a lubricant

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1961, 406, abstract 21M120 (Tr. 3-y konferentsii po treniyu i iznosu v mashinakh, M., AN SSSR, v. 3, 1960, 198 - 201)

TEXT: The influence of the nature and properties of a lubricant on the process of abrasive wear has been investigated for the case of rolling-contact bearings. The test stand used consisted of the ordinary boss of the track bogie (rotation transmitted from the engine) of a caterpillar vehicle with roller and ball bearings. Plastic grease (Solidol) and mineral oil with a viscosity of 16 centistokes at 100°C were used for the test, and the abrasive was natural dust containing up to 80% quartz. The influence of the nature of the lubricant on abrasive wear in rolling-contact bearings was found to be due to sedimentation effect. This is not possible with greases but may occur in oil suspensions. There was

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considerably less wear with the oil than with the grease. A study of the kinetics of abrasive wear in rolling-contact bearings shows that it takes place at a diminishing rate and almost ceases after a certain period of time (10 - 15 min. in the experiments). This is because the large particles are broken up (to about 2μ in size) and then cease to have any abrasive effect. [Abstracter's note: Complete translation.]

Card 2/2

S/065/62/000/011/003/006
E075/E436

AUTHOR: Vishnyakov, V.A.

TITLE: Soap-thickened lubricants for heavily loaded gears

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.11, 1962, 60-62

TEXT: Gears for speeds up to 1800 rpm and pinion tooth loadings of 15000 kg/cm^2 operate satisfactorily on lubricant ЦИАТИМ-208 (TsIATIM-208) of which the formulation is about 30% sulphurized automotive winter grade gear oil to standard ГОСТ 542-50 (GOST 542-50), about 55% grade "C" low pour-point axle oil to standard ГОСТ 610-48 (GOST 610-48), thickened with 15% calcium soap of sulphurized fatty acid and sulphurized oxidized petrolatum. In service this lubricant occasionally thickens and develops a grease structure which results in bearing failure. Tests were made with experimental batches of lubricant of reduced soap content (7.5 and 5%) with corresponding increase in the content of the viscous oil component to maintain adequate viscosity. As assessed by laboratory tests this reduced the risk of grease structure formation. The lubricants of reduced soap

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Soap-thickened lubricants ... S/065/62/000/011/003/006
E075/E436

content had practically the same viscosity at the operating temperature of 80°C and above whilst at lower temperatures they were lower in viscosity than the normal lubricants. Reduction of soap content did not impair the anti-wear properties as assessed by a four-ball machine. There are 3 figures and 2 tables.

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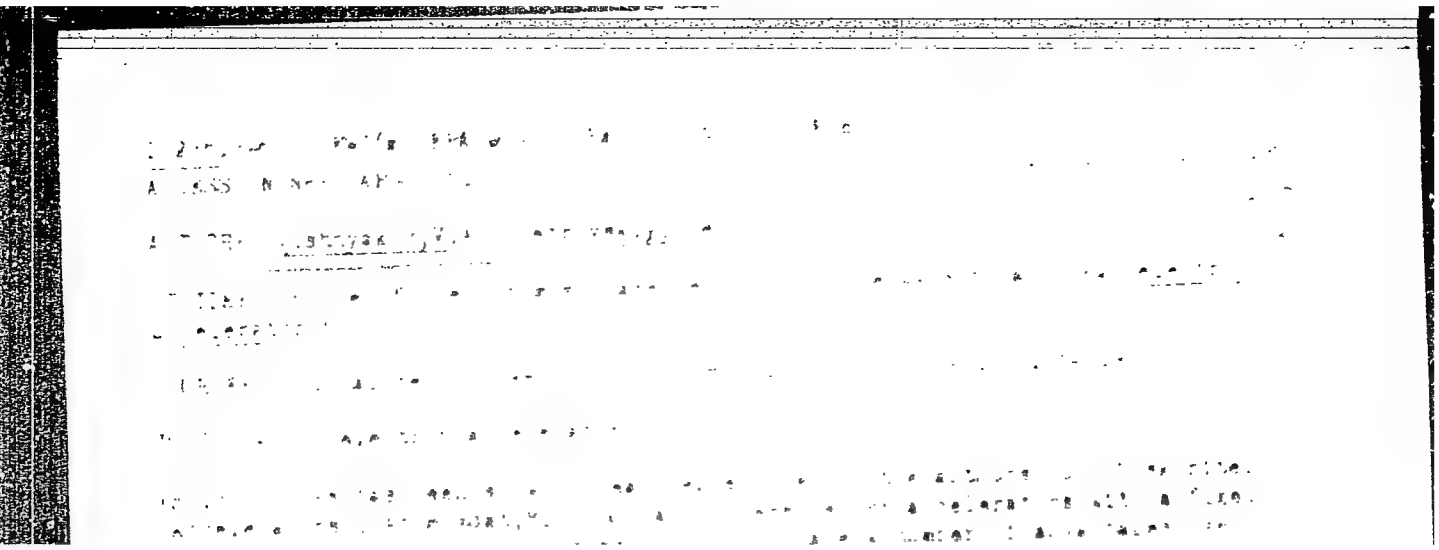

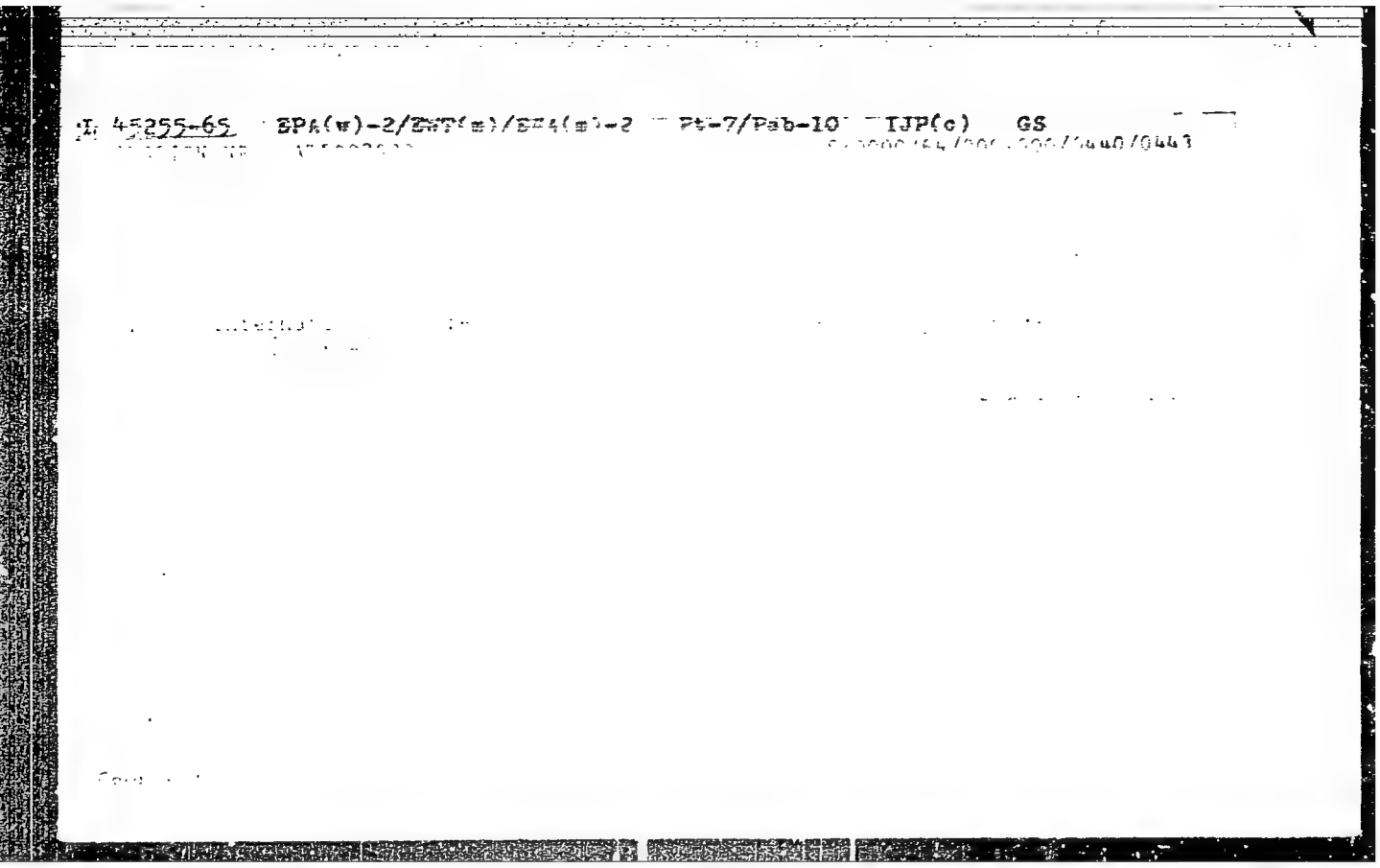

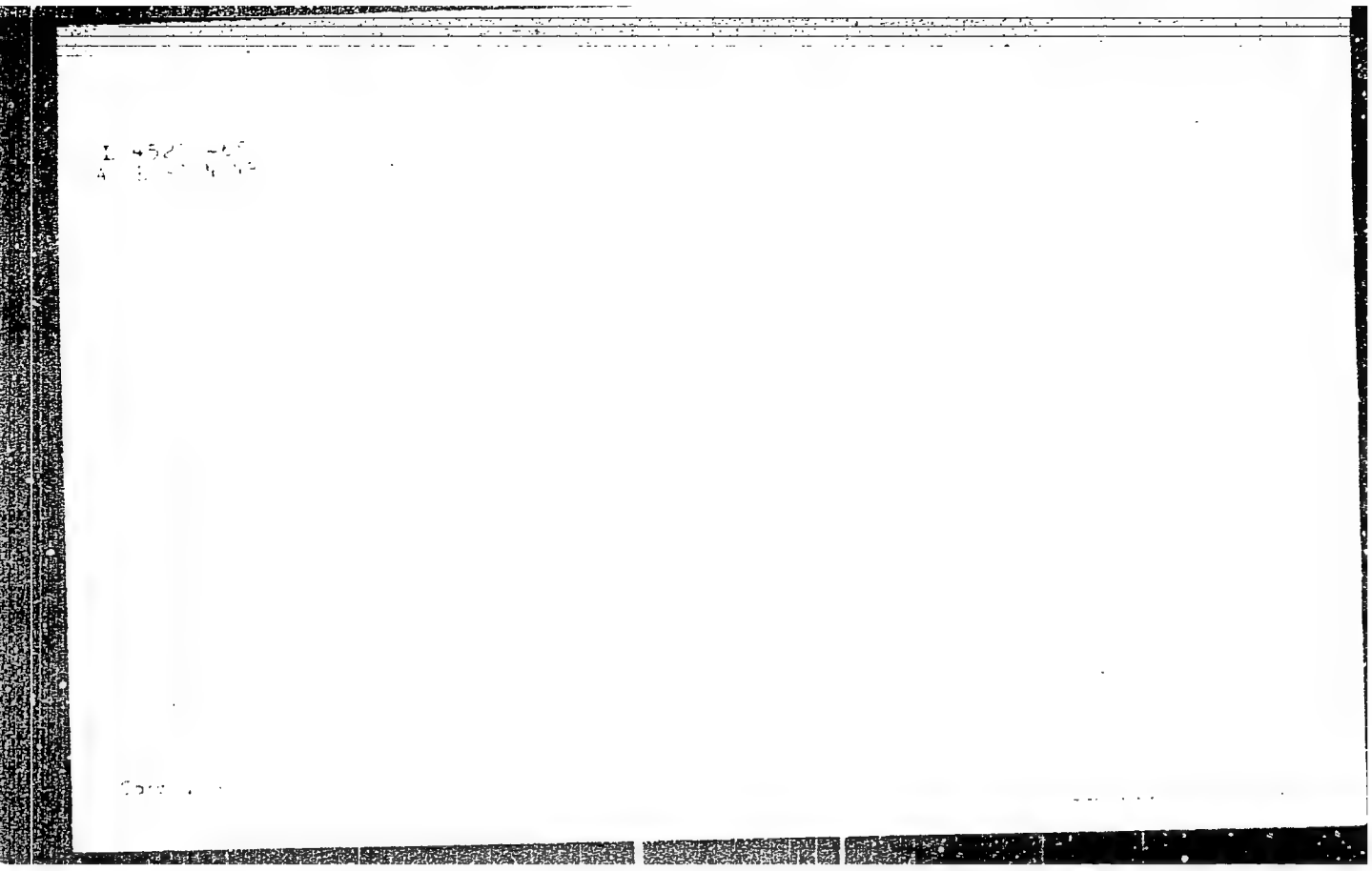

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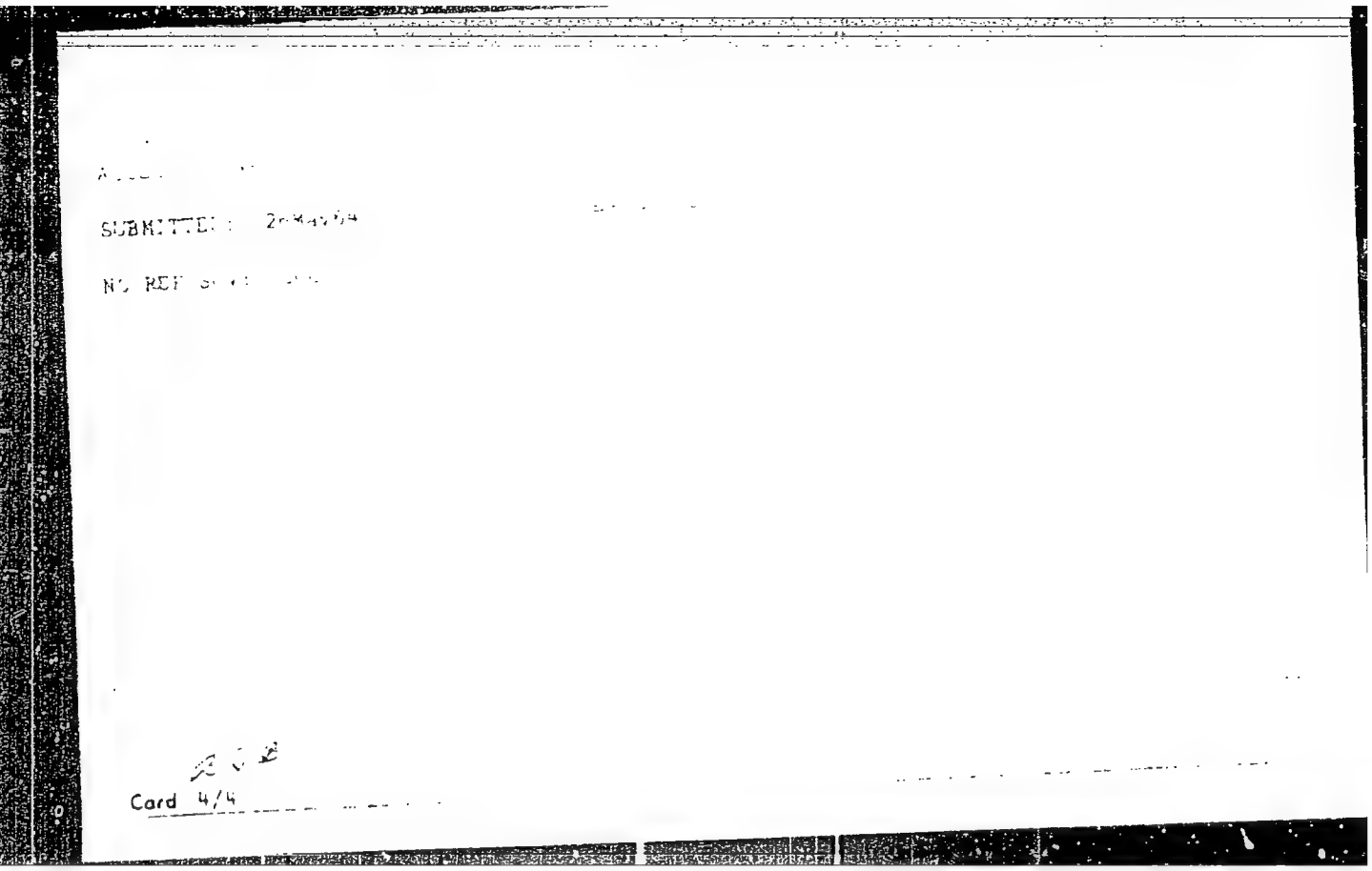

SUBMITTED: 2-24-59

NO REF

Card 4/4

GRIZHKO, V.M.; VISHNYAKOV, V.A.; [illegible], L.[illegible]; [illegible], Ye.V.; KUZNETSOV, G.F.; OSTROVSKIY, Ye.K.; KHVOROSTENKO, V.I.

A 40 Mev. linear electron accelerator. Zhur. tekh. fiz. 34 no.10: 1903-1905 O '64. (MIRA 17:12)

VISHNYAKOV, V.S.; OSTROVSKIY, Ye.A.

Optimization of the phase velocity of a wave in a linear electron accelerator. Zhur.tekh.fiz. 34 no.12:2188-2190 D '64.
(MIRA 18:2)

ACCESSION NR: AP4013435 S/0057/64/034/002/0379/0381

AUTHOR: Vishnyakov, V.A.; Zy*kov, A.I.

TITLE: Investigation of the effect of shift of the optimum frequency of an injection accelerator

SOURCE: Zhurnal tekhn. fiz., v.34, no.2, 1964, 379-381

TOPIC TAGS: linear accelerator, electron accelerator, linear accelerator matching cavity, linear accelerator frequency adjustment, accelerator matching cavity insert

ABSTRACT: The effect of a metal insert in the matching cavity of a linear accelerator on the performance of the accelerator was investigated experimentally. The type of insert investigated is illustrated in the Enclosure. The 83 cm long accelerator was of the constant phase velocity type intended for performing the bunching and injection functions for a larger installation. The initial electron energy was 80 keV, and the final energy was 6 MeV. The optimum frequency of the accelerator, corresponding to maximum electron capture, was determined as a function of the position of the insert. With an 80 kV/cm accelerating field, the optimum frequency, which was

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ACCESSION NR: AP4013435

2803 megacycles without the insert, dropped to a minimum of 2799 megacycles, and subsequently increased as the insert was moved farther into the matching cavity. This behavior is ascribed to the excitation in the presence of the insert of a wave having a phase shift across the matching cavity of 90° in addition to the normal wave of phase shift 180°. Calculations substantiated this interpretation. It is suggested that the insert may be employed when an adjustment of the frequency is necessary to secure optimum performance, and to compensate inaccuracies in the design and construction of the accelerator. "The authors consider it their pleasant duty to express their gratitude to I.A.Grishayev and Ye.K.Ostrovskiy for discussing the results of the work.". Orig.art.has: 2 formulas and 3 figures.

ASSOCIATION: Fiziki-tekhnicheskiy institut AN UkrSSR,Khar'kov(Physical-Technical Institute, AN UkrSSR)

SUBMITTED: 03Jun63 DATE ACQ: 26Feb64 ENCL: 01

SUB CODE: PH, SD NR REF SOV: 005 OTHER: 000

Card 2/2

VISHNYAKOV, V.I.

PHASE I BOOK EXPLOITATION SOV/5333

Febelinteyev, O. M., ed.

Uskoriteli: sbornik statey (Accelerators; Collection of Articles) Moscow, Atomizdat, 1960. 121 p. Errata slip inserted. 5,000 copies printed.

Scientific Ed.: I.N. Yablokov; Ed.: G.M. Febelinteyev; Tech. Ed.: M.A. Tikova.

PURPOSE: This collection of articles is intended for scientists and engineers engaged in the construction and operation of particle accelerators.

COVERAGE: These original articles treat specific problems arising in the operation of present-day accelerators, particularly linear electron accelerators. A new accelerator put into operation at the Ukrainian Physicotechnical Institute (Ukrainian Physicotechnical Institute) is described, and problems in the dynamics of particles in linear electron accelerators are discussed. New methods are discussed for the extraction of particle fields and the acceleration of multicharge with the shaping of permanent magnetic fields in the series cyclotron to the phasotron ions are also treated. The changeover of the series cyclotron to the phasotron acceleration made with a view to increasing the energy of accelerated particles is described, and some problems connected with the bunching of particles are elaborated. No personalities are mentioned. References accompany each article.

TABLE OF CONTENTS:

Yeremenko, Ye.V Kuznet

TITLE: A 40 MeV linear electron accelerator

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.10, 1964, 1903-1905

TOPIC TAGS: linear accelerator, electron accelerator

ABSTRACT: The authors briefly describe a linear accelerator which, operating at
tal-um cathode and are accelerated to 5 MeV in an 83 m long injector containing an

1/2

L 1752-65
ACCESSION NR: AP4046350

principal accelerator. The energy spread of the beam at half maximum is 3.6%, and the diameter of the beam is 6 mm. The [illegible] requires 5 kW of power and 4 [illegible] water. [illegible] wishes gratitude to F.L.Goro- [illegible] for their part [illegible]

ASSOCIATION: none

SUBMITTED: 16Jan64 ENCL: 00

SUB CODE: NP OTHER:

2/2

L 11341-67 EWT(1)/FSS-2

ACC NR: AP6029967 SOURCE CODE: UR/0413/66/000/015/0155/0155

AUTHOR: Tikhnyakov, V. A.

ORG: none

TITLE: Electrooptical device for teaching small-arms aiming. Class 72, No. 184655

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 155

TOPIC TAGS: small arm weapon, infantry weapon, weapon, gun sight, training equipment

ABSTRACT: An Author Certificate has been issued for an electrooptical device to teach small-arms aiming. It consists of mounting with a

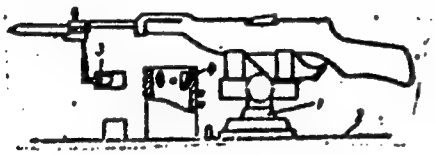


Fig. 1. Stand for training in small arms aiming

1 - Stand; 2 - platform; 3 - light source; 4 - electrooptical register.

Card 1/2 UDC: 623.4.052

L 11341-67
ACC NR: AP6029967

platform on which is fastened the firearm, enabling the student to change its position in either a vertical or a horizontal plane, an electrooptical register, and the target toward which the arm is directed (see Fig. 1). To assure accurate aiming by the student, the electrooptical register is mounted on a platform of the stand close to the arm, and the light source, which faces the stand, is mounted by brackets on the barrel of the firearm. Orig. art. has: 1 figure.

SUB CODE: 19, 05/ SUBM DATE: 20May65

Card 2/2

ACC NR: AP7004805 (N) SOURCE CODE: UR/0413/67/000/001/0143/0144

INVENTOR: Chirimanov, E. V.; Vishnyakov, V. A.

ORG: None

TITLE: Sight glass for the faceplate in a diving suit. Class 65, No. 190230

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 143-144

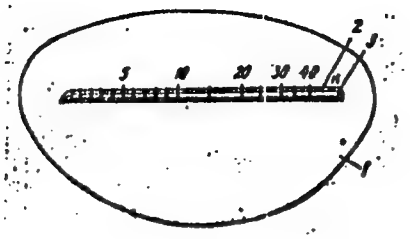
TOPIC TAGS: underwater clothing, measuring apparatus, depth gage

ABSTRACT: This Author's Certificate introduces a sight glass for the faceplate in a diving suit for underwater observations. The unit consists of an illuminator with a cleat. To provide greater convenience in measuring the depth of immersion, a capillary tube hermetically sealed on one end is mounted on the illuminator and has a superimposed scale graduated in meters water gauge.

UDC: 626.025

Card 1/2

ACC NR: AP7004805



1--illuminator; 2--cleat; 3--tube

SUB CODE: 15/ SUBM DATE: 12Apr65

Card 2/2

L 37666-66 EWT(1) SCTB DD

ACC NR: AP6011276 SOURCE CODE: UR/0413/66/000/006/0134/0134

INVENTOR: Vishnyakov, V. A.; Stroganov, V. A.; Tugarinov, P. T.; Chirmanov, E. V.

ORG: none

TITLE: Diving mask with a single glass face plate. Class 65, No. 180101

SOURCE: Izobreteniya promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 134

TOPIC TAGS: diving, diving mask, UNDERWATER CLOTHING, EYE PROTECTIVE DEVICE

ABSTRACT: This Author Certificate introduces a diving mask with a single glass face plate. For better visibility, the face plate is designed with a cleaner brush to wipe off moisture condensate, which is operated manually from the outside. [LD]

SUB CODE: 15, 13/ SUBM DATE: 31Dec64

Card 1/1 UDC: 626.025.2

VISHNYAKOV, V.F., POPOV, S.I.; NIKOLAYEV, P.P.; NIKITIN, B.G., veter, vrach.; GRUZDEVA, Ye.K., veter. vrach; SMIRNOV, A.M., prof.

Preparation and application of the gastric juice of horses. Veterinariia 40 no.5:44-47 My '63. (MIRA 17:1)

1. Direktor Gosudarstvennogo plemennogo zavoda "Lesnoye", Leningradskoy oblasti (for Vishnyakov). 2. Glavnyy veterinarnyy vrach Gosudarstvennogo plemennogo zavoda "Lesnoye" Leningradskoy oblasti (for Popov). 3. Nachal'nik tsekha po proizvodstvu natural'nogo zheludochnogo soka loshadey Gosudarstvennogo plemennogo zavoda "Lesnoye" Leningradskoy oblasti (for Nikolayev). 4. Gosudarstvennyy plemennoy zavod "Lesnoye" Leningradskoy oblasti (for Nikitin, Gruzdeva). 4. Leningradskiy veterinarnyy institut (for Smirnov).

L 07263-67 EWT(d)/EWT(m)/EWP(v)/EWP(k)/EWP(h)/EWP(l) JR/GD

ACC NR: AT6025304 SOURCE CODE: UR/0000/66/000/001/0036/0048

AUTHOR: Plyutinskiy, V. I.; Kazachkov, V. I.; Vishnyakov, V. I.

30

B+1

ORG: none

14

TITLE: Certain problems of optimal control of nuclear reactors

19

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Upravleniye yadernymi energeticheskimi ustanovkami (Control of nuclear power plants), no. 1. Moscow, Atomizdat, 1966, 36-48

TOPIC TAGS: nuclear reactor control, optimal control, reliability, reactor neutron flux

ABSTRACT: The authors describe a control system which makes use of two means of increasing control-system reliability, namely increase of the reliability of the elements themselves and the design of reliable systems made up of unreliable elements. This is done by using a relay-input regulator whose output signal guarantees sufficient speed of the control process in the absence of self oscillations. Such a system is based on a six-group solution of the reactor neutron kinetics. Block diagrams of regulators for the neutron flux, for the coolant temperature, are presented in the single-channel and in the three-channel ("two out of three") operating versions. It is claimed that a tentative reliability of approximately 0.93 can be attained for the

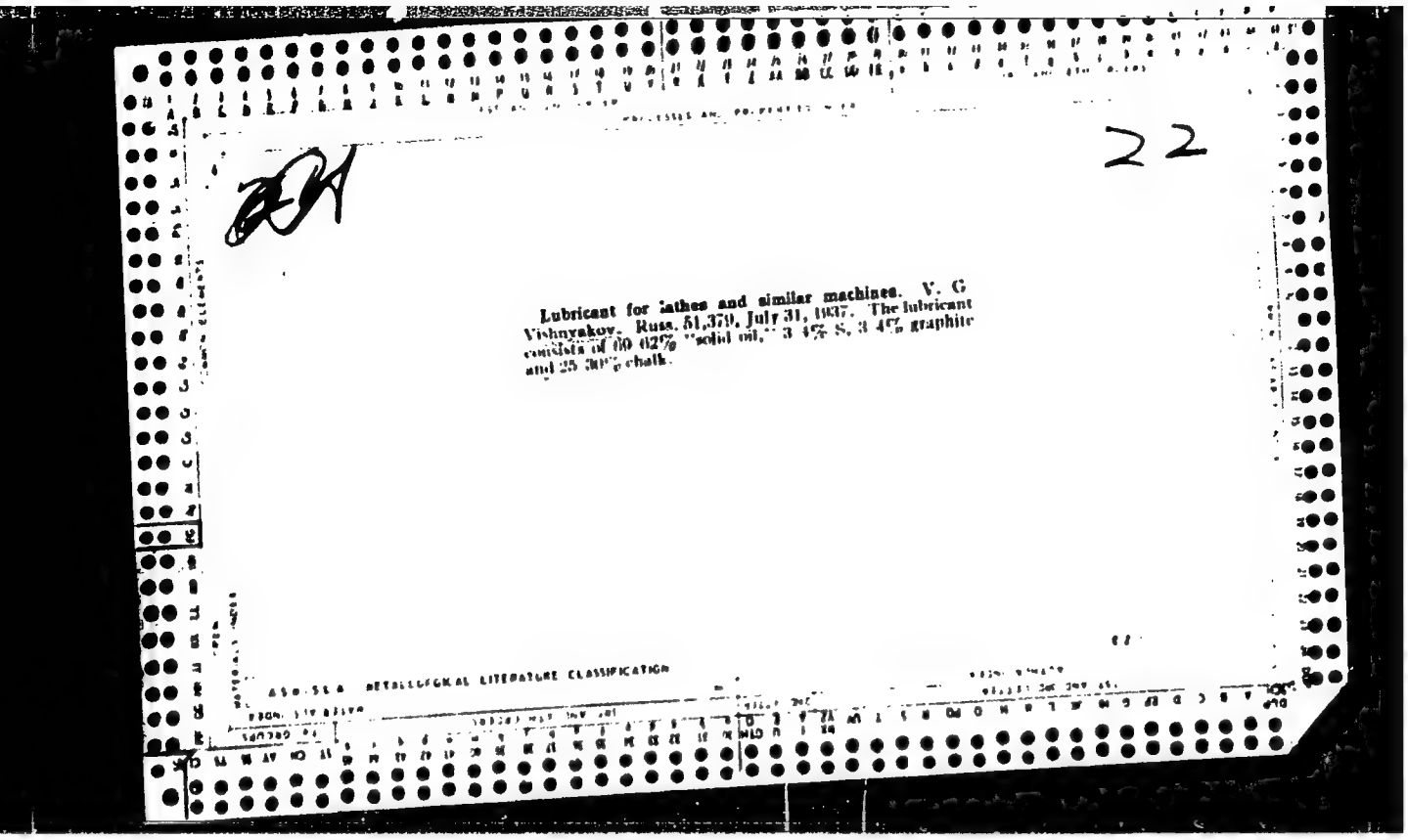
Card 1/2

L 07263-67
ACC NR: AT6025304

three-channel regulator. Another advantage of the three-channel regulator is that faulty operation of individual channels can be readily detected. Orig. art. has: 8 figures and 18 formulas

SUB CODE: 18/ SUBM DATE: 27Dec65/ ORIG REF: 002/ OTH REF: 001

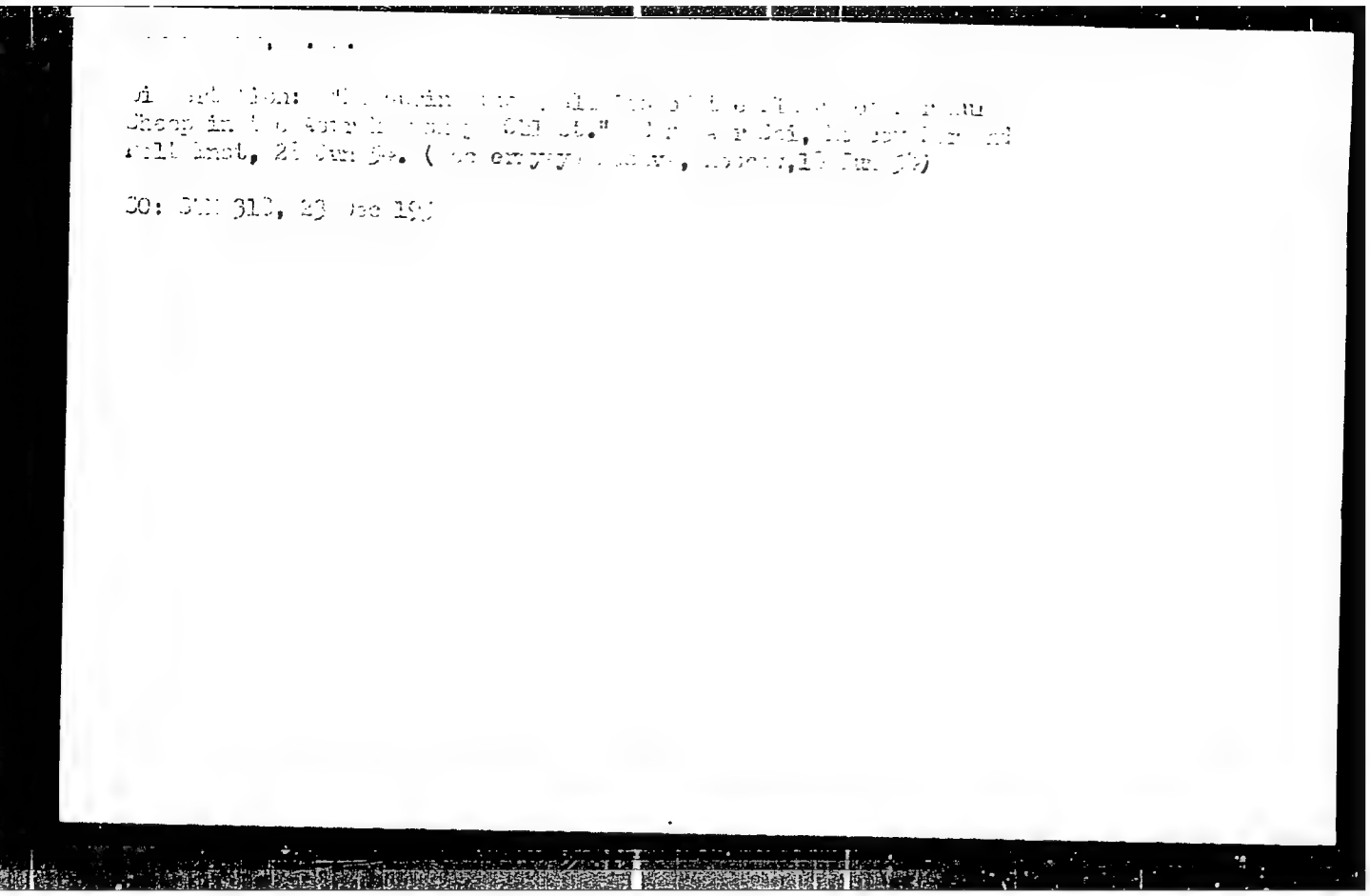
Card 2/2



22

Lubricant for lathes and similar machines. V. G. Vishnyakov. Russ. 51,379, July 31, 1937. The lubricant consists of 60-62% "solid oil," 3-4% S, 3-4% graphite and 25-30% chalk.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



VISHNYAKOV, V.N.

BRUSOV, V.I.; PERELYGIN, N.S.; SINITSYN, V.P.; VISHNYAKOV, V.N., redaktor; PETROVA, M.D., tekhnicheskiy redaktor.

[Air raid and chemical warfare defense] Protivovozdushnaia i protivokhimicheskaia zashchita. Moskva, Dobrovol'noe ob-vo sodeistviia armii, aviatsii i flotu, 1952. 111 p. [Microfilm]
(Air defenses) (MLRA 7:11)

VASILEVSKIY, I. M., and VISHNYAKOV, V. V.

"Investigaiton of 300 Mev π Mesons Elastic Scattering by Hydrogen,"

papers presented at the Annual International Conference on High Energy Physics, CERN, Geneva, 30 Jun - 5 Jul 58.

Laboratory of Nuclear Problems, Joint Institute for Nuclear Research, Dubna, USSR.

VISHNYAKOV, Valentin Vasil'yevich[Vyshniakov, V.V.]; BEZUGLYY, A.M. [Bezuhliy, A.M.], kand. geol.-miner. nauk, red.; SHPORTYUK, V.I., red.; GORBUNOVA, N.M.[Horbunova, N.M.], tekhn. red.

[Concised geological dictionary-handbook]Korotkyi geologichnyi slovnyk-dovidnyk. Za red. A.M.Bezuhloho. Kyiv, "Radians'ka shkola," 1962. 112 p. (MIRA 16:3)
(Geology--Dictionaries)

VISHNYAKOV V V

89-10-3/36

AUTHORS Vishnyakov V.V., Tyapkin A.A.,

TITLE The Operation of Gas Discharge Counters Under Controlled Pulsed Voltage Conditions.
(Issledovaniye raboty gazorazryadnykh schetchikov v rezhime upravlyayemogo impul'snogo pitaniya - Russian)

PERIODICAL Atomnaya Energiya, 1957, Vol 3, Nr 10, pp 298 - 307 (U.S.S.R.)

ABSTRACT The counting errors caused by the dead time of the counter can be eliminated in the case of pulse-like feeding of gas discharge counters.
The counting characteristics, effectivity and dissolving capacity of argon-metylal counting tubes MC-6, MC-7, MC-9 and the halide counting tube CTC were determined for the case that they are fed pulse-like. It was found that with short time feeding (duration of pulse $\sim 10^{-6}$ sec) the counting tubes are still able to work at overvoltages of up to 2 KV. If this fact is taken advantage of for a hodoscope (telescope), the pulses coming from the counting tube need not be amplified and no coincidence with control pulses is necessary. Each channel of the hodoscope, with the exception of the counting tube, switches on only the load resistance and a neon signal lamp. Thus a considerable simplification of the construction as well as reliability of operation is warranted.
There are 11 figures.

AVAILABLE Library of Congress.

Card 1/1

24.6810

82884

S/120/60/000/02/015/052

E140/E355

AUTHORS: Vasilevskiy, I.M. and Vishnyakov, V.V.

TITLE: Pulsed Hodoscopic Counter System

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No 2, pp 58 - 63 (USSR)

ABSTRACT: Scattering of π-mesons from protons (hydrogen) at an energy of 300 MeV was studied by this system. The pulsed power supply was triggered by a system of three scintillation counters in a coincidence circuit for detecting interaction of the meson beam with the hydrogen (liquid hydrogen). Methylal counters were used in the hodoscope, which triggered cold-cathode neon thyratrons arranged in the same configuration for photography of the paths of the interacting particles. The arrangement permitted an accuracy of $\pm 4^{o}$. The solid angle covered by the counters was 1.73 strad. Due to slightly low pulse power the efficiency of the system was 85%. A future system will employ a hydrogen thyratron. The system is most suitable for the study of interactions at low intensities of the order of several particles per sec.

Acknowledgments are expressed to A.A. Tyapkin for directing and assisting in the work, to N.M. Kobaleva for designing the main assemblies of the equipment and to Yu.D.Bayukov

Card1/2

82884
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E140/E335

Pulsed Hodoscopic Counter System

for his assistance in the work.
There are 6 figures and 4 Soviet references.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Joint Institute of Nuclear Research)

SUBMITTED: January 31, 1959

Card 2/2

Vishnyakov, V. V.

82018
S/056/60/038/02/19/061
B006/B011

24.4500

AUTHORS: Vasilevskiy, I. M., Vishnyakov, V. V.

TITLE: Elastic Scattering of 300-Mev π^--Mesons on Hydrogen

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 2, pp. 441-444

TEXT: Fig. 1 shows a scheme of the experimental setup used by the authors for investigating the elastic (π^-p) scattering. The pions were produced by bombarding a beryllium target with 670-Mev protons of the inner beam of the OIYaI synchrocyclotron. The π^--meson energy was found to be 300±7 Mev according to the respective range in copper. The μ^- admixture was 4%. The π^- beam was separated by means of a scintillation counter telescope and hit a target of foam polystyrene with liquid hydrogen. The pion-beam intensity, recorded by the telescope, amounted to 13,000 particles per minute. Fig. 2 shows the arrangement of the 426 counters in the hodoscope system. The counters, fed by pulsed voltage, recorded the π^--mesons scattered in the interval between 20 and 160° in the laboratory system. The (π^-p)-scattering was investigated with targets with and without

Card 1/3

Elastic Scattering of 300-Mev π^--Mesons on Hydrogen

hydrogen, and the photographs thus obtained were analyzed in two stages, the trajectories were divided into groups which are discussed here. Figs. 3, 4, and 5 show photographs taken by the hodoscope system with (π^-p) events. An interpretation of photographic films yielded a total of about 1500 scattering events, among which about 1000 (π^-p) scattering events. Fig. 6 shows the obtained angular distribution of the differential scattering cross section in the center of mass system. Assuming that elastic scattering is mainly due to S- and P-waves, the angular distribution can be described by formula

$$d\sigma/d\Omega = \left[(0.62 \pm 0.06) + (0.30 \pm 0.09)\cos\theta + (0.94 \pm 0.19)\cos^2\theta\right] \cdot 10^{-27}$$

cm^2/steradian. For phase analysis, the authors availed themselves of information supplied by A. I. Mukhin and B. Pontekorvo (Ref. 4) apart from data obtained by the investigation under review. The electronic computer "Strela" was used for the purpose. Respective data are compiled in a table. The phases of the first set (cf. Table) agree with those found by Zinov and Korenchenko (Ref. 5). The authors finally thank A. A. Tyapkin for his advice and assistance, and N. I. Polumordvinova for her aid in the phase analysis. There are 6 figures, 1 table, and 5 Soviet references.

Card 2/3

Elastic Scattering of 300-Mev π^--Mesons on Hydrogen

82018
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B006/B011

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: September 3, 1959

Card 3/3

83612

S/056/60/038/005/045/050
B006/B063

24.6900

AUTHORS: Vasilevskiy, I. M., Vishnyakov, V. V.

TITLE: Polarization of Recoil Protons in the Scattering of 300-Mev π^--Mesons From Hydrogen

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 5, pp. 1644 - 1646

TEXT: Phase shift analysis of the differential cross sections of elastic and charge-exchange pion scattering gives no unambiguous results. To obtain them, it is necessary to carry out an additional investigation of the polarization of recoil protons. So far, only one report has been given on the measurement of the polarization of recoil protons in $\pi^- p$ interaction (E_{π^-} = 223 Mev) (Ref. 2). Agreement with the Fermi-type phase-shift set (Ref. 1) could be found, but one of the Yang-type sets could not be ruled out on account of the statistical error. The present "Letter to the Editor" gives preliminary results of measurements of the polarization of recoil protons in $\pi^- p$ scattering (E_{π^-} = 300 Mev). The

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83612

Polarization of Recoil Protons in the Scattering of 300-Mev π^--Mesons From Hydrogen

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B006/B063

measurements were made with a system of hodoscope counters which was described in Refs. 3 and 4. 305 elastic π^-p scattering events were found on the photographs. According to the angle of emission of the recoil proton, they were divided into three groups. The polarization of the recoil proton was calculated from $P = (N_L - N_R)/P_1(N_L + N_R)$, where N_L and N_R indicate the numbers of left-hand and right-hand scattered protons, respectively, and P_1 is the analyzability of the above-mentioned system.

Angular range of recoil proton (laboratory system)	N_R	N_L	P
15-23°	43	48	0.12±0.20
24-32°	85	58	-0.45±0.19
33-41°	45	26	-(0.70±0.21) -0.32

The results of measurement and two phase-shift sets are shown in a diagram. The results obtained agree much better with the first set ($\alpha_1 = 17.1^\circ$, $\alpha_{11} = 11.4^\circ$, $\alpha_{13} = -5.0^\circ$). The authors thank A. A. Tyapkin

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83612

Polarization of Recoil Protons in the Scattering of 300-Mev π^--Mesons From Hydrogen

S/056/60/038/005/045/050
B006/B063

for this assistance, as well as R. M. Sulyayev and L. I. Lapidus for their interest in this work. There are 1 figure, 1 table, and 7 references: 3 Soviet, 1 US, 1 Italian, 1 Dutch, and 1 CERN.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: March 3, 1960

X

Card 3/3

S/056/60/039/003/057/058/XX
B006/B070

24.6900

AUTHORS: Vasilevskiy, I. M., Vishnyakov, V. V., Iliyesku, E., Tyapkin, A. A.

TITLE: The Spin Correlation Coefficient in pp-Scattering[19] at an Energy of 310 Mev Through an Angle of 90° in the Center-of-mass System

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 3(9), pp. 889 - 891

TEXT: In the introduction, the authors give a survey of the results of phase shift analyses of elastic 310-Mev pp-scattering events published in America. The spin correlation coefficients $C_{nn}(90^{\circ})$, which determine the correlation between the spin components perpendicular to the plane of scattering, are given for different phase shift sets (sets No. 1,2,3, 4,6: 0.158, 0.711, 0.300, 0.490, and 0.425). Other calculations (Refs. 3-5) give other $C_{nn}(90^{\circ})$ values (No. 1: 0.38; No. 2: 0.61). Experiments for the determination of $C_{nn}(90^{\circ})$ carried out at Liverpool

The Spin Correlation Coefficient in pp-Scattering at an Energy of 310 Mev Through an Angle of 90° in the Center-of-mass System

S/056/60/039/003/057/058/XX
B006/B070

(E_p = 320 Mev) and Dubna (315 Mev) point rather to set No. 2; $C_{nn}(90^\circ)$ = 0.75 ± 0.11 (Liverpool) and $C_{nn}(90^\circ)$ = 0.7 ± 0.3 (Dubna). The authors have now completed their calibration tests with reference to the analyzability of the scatterer and determined C_{nn} anew. $C_{nn}(90^\circ)$ was found to be equal to $0.84^{+0.10}_{-0.22}$. The authors then discuss estimates of the contributions of the singlet, triplet, and tensorial interactions b^2, c^2, and h^2, respectively. According to S. B. Nurushev, for example, $b^2 \approx 25\%$, $c^2 \sim 62\%$, and $h^2 \approx 13\%$. The effect of taking into account a smaller number of phase shifts in the analysis on the agreement between theory and experiment is also discussed. It is noted that if 9 phase shifts instead of 14 are considered, and the pion-nucleon coupling constant g^2 is taken into account, a coefficient value of about 0.41 is obtained for the first and the second set. L. B. Okun' and I. Ya. Pomeranchuk are mentioned. There are 10 references: 3 Soviet, 6 US, and 1 British.

Card 2/3

84971

The Spin Correlation Coefficient in pp-Scattering at an Energy of 310 Mev Through an Angle of 90° in the Center-of-mass System

S/056/60/039/003/057/058/XX
B006/B070

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: June 27, 1960

X

Card 3/3

VISHNYAKOV, V.V.; TAN SYAO-VEY [Tan Siao-vei]

Low-voltage halogen counters (discharge mechanism). Usp.fiz.nauk 72 no.1:133-152 S 60. (MIRA 13:8)
(Nuclear counters)

VASILYEVSKIY, I.M., VISHNYAKOV, V. V., ILIESCU, E., TYAPKIN, A.A.

"Measurement of the Correlation Coefficient of Polarizations in Elastic pp-Scattering at 90° (c.m.s.) at 315 Mev"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Joint Institute for Nuclear Research
Laboratory of Nuclear Problems

VASILEVSKIY, I.M.; VISHNYAKOV, V.V.; ILIYESKU, E.; TYAPKIN, A.A.

Measurement of the spin correlation coefficient in elastic pp-scattering at 315 Mev. Zhur. eksp. i teor. fiz. 45 no.3: 474-479 S '63. (MIRA 16:10)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Protons--Scattering)

L 9444-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l) JD

ACC NR: AT5028815 SOURCE CODE: UR/2563/65/000/250/0061/0064

AUTHOR: Vishnyakov, V. V.

ORG: Laboratory of the Department of Machinery Building Technology, Leningrad Polytechnic Institute im. M. I. Kalinin (Laboratoriya kafedry tekhnologii mashinostroyeniya Leningradskogo politekhnicheskogo instituta)

TITLE: Test stand for turning metals in the 5,000 to 20,000 m/min speed range

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy, no. 250, 1965. Avtomatizatsiya i tekhnologiya mashinostroyeniya (Automation and technology of machinery manufacture), 61-64

TOPIC TAGS: metalworking, metal turning, turning machine

ABSTRACT: The author describes an experimental device by means of which metals can be worked by turning at cutting speeds between 5,000 and 20,000 m/min. The device was developed in 1963-1964 at the laboratory of Machinery Building Technology Department of LPI im. M.I. Kalinin (laboratoriya kafedry tekhnologii mashinostroyeniya LPI). A line diagram of the device is presented (see Fig. 1) and shows a sample (a disk of the metal under study) 250 to 300 mm in diameter attached to the conical end of a spindle. The entire process is described.

Card 1/3

L 9944-66

ACC NR: AT5028815

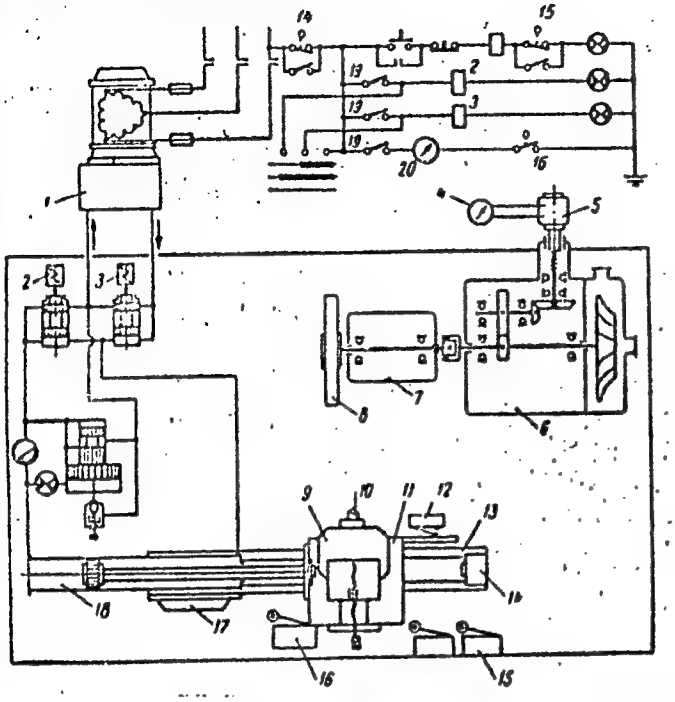

Fig. 1. Test stand for turning metals in the 5,000 to 20,000 m/min speed range.

1 - pumping station; 2 and 3 - slide valves; 4 - electric tachometer; 5 - tachometer generator; 6 - radial centipetal turbine; 7 - headstock; 8 - sample (disk made of test metal); 9 - cutter holder, or tri-component tensometric dynamometer; 10 - cutter-tool; 11 - sliding carriage; 12 - special pickup; 13 - guide; 14 - terminal contact breaker; 15 - track contact breaker; 16 - track change-over switch; 17 - measuring cam; 18 - hydraulic cylinder; 19 - contact breaker; 20 - timer.

Card 2/3

L 9904-66
ACC NR: AT5028815

Orig. art. has: 1 figure.

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 004

Card 3/3

VISHNYAKOV, V. Ye.

USSR/Virology - Viruses of Man and Animals. D-3

Abs Jour : Ref Zhur - Biologiya, No 7, 10 April 1957, 26127

Author : Vishnyakov, V.Ye.
Inst : Leningrad Medical Institute of Sanitation and Hygiene
Title : Laboratory Methods for the Diagnosis of Infectious Hepatitis.

Orig Pub : Tr. Leningr. san.-gigien. med. in-ta, 1956, 28, 88-96

Abst : No abstract.

Card 1/1

VISHNYAKOV, V. Ye. Cand Med Sci -- (diss) "Epidemiological significance of patients affected with chronic forms of epidemic hepatitis." Len,1957. 16 pp 20 cm. (Min of Health RSFSR. Len Sanitary-Hygiene Med Inst), 200 copies (KL, 24-57,120)

VISHNYAKOV, V.Ye.

Epidemiological characteristics of epidemic hepatitis in Leningrad from 1952 to 1955; statistical data. Trudy LSGMI 32:233-243 '57. (MIRA 12:8)

1. Kafedra epidemiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - prof. V.A.Bashenin).
(HEPATITIS, INFECTIOUS, epidemiol.
in Russia, statist. (Rus))

VISHNYAKOV, V.Ye.

Epidemiological significance of patients with chronic forms of epidemic hepatitis. Trudy LSGMI 28:44-45 '56. (MLRA 10:5)
(HEPATITIS, INFECTIOUS, transmission, chronic forms (Rus))

VISHNYAKOV, V.Ye.

Methods for a laboratory diagnosis of epidemic hepatitis. Trudy LSGMI 28:88-96 '56. (MLRA 10:5)

(HEPATITIS, INFECTIOUS, diagnosis, laboratory methods (Rus))

VISHNYAKOV, Vy Ye.

"Laboratory Diagnosis of Epidemic Hepatitis." Paper submitted at Conference on Problems of Epidemic Hepatitis, Lenigrad, 8 May 57

Sum in 1429

Vishnyakov, Ya.

BULGARIA/Zooparasitology - Parasitic Worms. G-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 14917

Author : Vishnyakov, Yanchev
Inst :
Title : Morphological Characteristics of Echinococcus Cyst in Elephants' Musculature (Elephas maximus).

Orig Pub : Izv. Tsentr. khelmintol. lab. 1957, 2, 107-111

Abstract : On simultaneous finding of unilocular and alveolar echinococcus forms in elephants.

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S/126/60/010/006/008/022
E193/E483

AUTHORS: Vishnyakov, Ya.D. and Gorelik, S.S.

TITLE: Stacking Faults in Cold-Worked Nickel and Nichrome

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol.10, No.6, pp.841-852

TEXT: The experimental specimens used in the course of the present investigation consisted of nichrome (13.3% Cr) filings either untreated (i.e. in the cold-worked condition) or vacuum-annealed (30 min at 1000°C, followed by water-quenching), and nickel powder (obtained by hydrogen reduction of nickel oxides at 400°C) either untreated (i.e. in the annealed condition) or cold-worked by ball-mill grinding for 48 h. Analysis of the results of X-ray diffraction measurements led the present authors to the following conclusions. (1) The presence of deformation-induced stacking faults in metals with face centred cubic lattice brings about displacement of the X-ray diffraction lines which, at the same time, become weaker and more diffuse. The magnitude and sign of the displacement depends on (hkℓ), where h, k and ℓ are the indices of the cubic lattice, and the decrease in the intensity of X-ray diffraction is most pronounced in the case of

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the lines (200) and (400). The magnitude of all three effects increases with increasing concentration of the stacking faults. (2) The concentration of stacking faults in heavily deformed nickel and nichrome is approximately 1 and 2% respectively. The relatively higher concentration of stacking faults in nickel (most likely attributable to the presence of chromium in the alloy) is reflected in the magnitude of their effect on the X-ray diffraction pattern. (3) If the effects of stacking faults are taken into account, the average size of the coherently reflecting regions in heavily deformed specimens is 470 Å in the case of nickel and 390 Å in the case of nichrome. If the effect of stacking faults is disregarded, these figures become 300 and 170 Å respectively. (4) The decrease in the lattice parameter of nickel powder brought about by heavy deformation, caused by ball-mill grinding, is most likely due to (a) the formation of vacancies during deformation and (b) migration of impurity atoms to the grain-boundary regions. (5) The decrease in the lattice parameter of nickel filings brought about by vacuum-annealing at

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approximately 1000°C, can be attributed to volatilization of chromium which takes place during this treatment and which is accompanied by the formation of vacancies. There are 6 figures 4 tables and 14 references: 4 Soviet and 10 non-Soviet.

ASSOCIATION: Moskovskiy institut stali im. I.V.Stalina
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SUBMITTED: April 25, 1960

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S/048/62/026/003/005/015
B107/B102

AUTHORS: Vishnyakov, Ya. D., and Umanskiy, Ya. S.

TITLE: Formation of packing defects in alloys during the distillation of the volatile component

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 3, 1962, 352-353

TEXT: Zinc was distilled from a silver - zinc alloy with a face-centered cubic lattice (~ 10% by weight of Zn) at 600-650°C and 10^{-4} mm Hg. The 0.08 mm thick plates were cooled in air. A standard sample was cooled to room temperature within 12 hrs in a furnace. The reflection patterns ((111) and (200)) were recorded with a УРС-50И (URS-50I) diffractometer and CuK_{α} emission. The distance between the two reflexes from the standard was by α_4' larger than that from the chilled sample. This is probably due to packing defects. Since distillation changes the lattice constant, the ratio $\sin\vartheta_{200}/\sin\vartheta_{111}$ (sines of the reflection angles) which is independent of the lattice constant, is suggested for quantitative characterization of lattice defects. In packing defects in a face-centered cubic lattice, (200)

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is displaced toward smaller, and (111) toward wider angles. The sine ratio decreases by 0.026, whereas the greatest possible error in the determination of this ratio is 0.015. Two competing processes of defect concentrations in the alloys are assumed to occur, since in some papers (Ref. 4: V. L. Kalikhman, Ya. S. Umanskiy, N. V. Chirikov, Fizika metallov i metallovedeniy, 11, no. 2, 314 (1961)) channels with a (110) orientation were found to appear when the volatile component is distilled off. The results of the present paper show a concentration of defects in the (111) plane. The two English-language references are: W. T. Read, Dislocations in crystals, C. N. J., Wagner, metallurg., 5, 427 (1957).

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[X-ray and electron diffraction examination of metals; practical guide to X-ray analysis, electron diffraction examination and electron microscopy] Rentgenograficheskii i elektronograficheskii analiz metallov; prakticheskoe rukovodstvo po rentgenografii, elektronografii i elektronnoi mikroskopii. Moskva, Metallurgizdat, 1963. 256 p.
[Supplement; calculation data tables and standard X-ray diffraction patterns] Prilozheniia; spravochno-raschetnye tablitsy i tipovye rentgenogrammy. 1963. 92 p.
(MIRA 17:1)

(Metallography) (Electron microscopy)
(Electron diffraction examination)

BARSUKOV, V.N.; VISHNYAKOV, Ya.D.; UMANSKIY, Ya.S.

Characteristics of the fine crystal structure of titanium following cold straining. Metalloved. i term. obr. met. no.11:48 N '63. (MIRA 16:11)

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VISHNYAKOV, Ya.D.; MAZO, D.M.; UMANSKIY, Ya.S.

Defects of packing in pure cobalt and in cobalt-iron alloys.
Izv. vys. ucheb. zav.; chern. met. 6 no.9:145-147 '63.
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Effect of packing defects on the position of the (261) line in an X-ray photograph of a metal with a face-centered cubic lattice. Kristallografiia 8 no.2:273-275 Mr-Ap '63. (MIRA 17:8)

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VISHNYAKOV, Ya.D.; KARDONSKIY, V.M.

Defects of packing in deformed steel. Fiz. met. i metalloved. 15 no.5:779-781 My '63. (MIRA 16:8)

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(Steel—Metallography)
(Crystal lattices)